REMARKS

The objection to the drawing, specifically with regard to Claim 18, is traversed, and reconsideration is respectfully requested.

The intention of 37 CFR § 1.83(a) is not to require illustration of details of a feature, particularly where the feature by itself is generally well known, but some general illustration of where it is in relation to the claimed invention.

In the instant case, Applicant has shown a speed-monitored main shaft(s) 12 (22, 32) and the brake(s) 18 (28, 38) which can feed the not-required energy back into the power supply network (see [0029] of the Specification). For one of ordinary skill in the press art, the shown and described feature satisfy both the patent statute and PTO rules.

The objection to the disclosure ([0030]) and the corresponding rejection of Claims 8 and 9 under 35 USC § 112, ¶ 1 are traversed, and reconsideration is respectfully requested.

The Office Action itself has cited one document showing (U.S. Patent 5,259,269) showing displaceable flywheel masses. Other examples (e.g. U.S. Patent No. 5,457,883) can be found by a search of the PTO's database and a Google search to show that displaceable flywheel masses, per se, are within ordinary skill in the art whether they be adjusted manually, hydraulically, pneumatically or electrically. The exercise of invention skill or unreasonable

experimentation is not required to complement displaceable flywheel masses. The disclosure is fully adequate and Claims 8 and 9 are amply supported.

Likewise the rejection of Claims 18 and 21 under 35 USC § 112, ¶ 2 is traversed, and reconsideration is respectfully requested.

Applicant notes that the Office Action points to no perceived defect in Claim 21. Clarification is therefore solicited.

The antecedent basis issue has been addressed. However, applicant cannot agree that Claim 18 is otherwise deficient in a paragraph 2 sense as regards the relationship between the claimed elements. That relationship is fully disclosed. The claim itself is entitled to recite the relationship in a broader sense. Claim 18 particularly points out and distinctly claims the invention in relation to the prior art.

The rejections of Claims 1 and 21 as being anticipated by Narita under 35 USC § 102(a), of Claims 1-7, 17 and 18 as being anticipated by DE '527 under 35 USC § 102(b), of Claims 1, 10-16 and 20 as being anticipated by Sapolsky also under 35 USC § 102(b), of Claim 8 as being unpatentable over DE '527 in view of Sudau under 35 USC § 103(a), and of Claim 19 as being unpatentable over DE '527 in view of Swenson, Sr. also under 35 USC § 103(a) are traversed. Reconsideration of each of these rejections is respectfully requested.

In view of the inclusion of the subject matter of Claims 6 and 8 in Claim 1, the three § 102 rejections are deemed moot. Therefore, discussion of the Narita and Sapolsky patents is unnecessary.

The Office Action acknowledges that the DE '527 document does not teach an important feature of the present invention. Before discussing the secondary reference (Sudau), it may be useful to focus initially on the present invention so that the inappropriateness of the DE '527/Sudau hypothetical combination can be better appreciated.

The present invention is directed to the synchronization of the main shaft of a press with a flywheel. A problem relating to presses having a high pressure force is that during press operation the power supply demand (or load) can vary significantly, particularly when there are further accessory drives drawing energy from the power supply network in addition to the press main drive. If the power supply network is not able to handle transient peak loads, disturbances can occur in the power supply network. Known fly masses storing energy help to reduce this effect, but still difficulties are encountered in synchronizing the press main drive with other drives. Energy "buffering" of the accessory drives with their own flywheels are not the solution because it is important to synchronize the accessory drives with the main drive or other energy consumers within the press. Applicant recognized how to prevent energy supply storages, or at least

minimize them, even when the press and additional functions are operated simultaneously.

To that end the Applicant recognized that it was necessary to provide flywheels having the ability to vary moment of inertia. Accordingly, disposable flywheel masses, themselves know per se, operatively are arranged solely in the flywheel. A displacement of the flywheel masses allows the flywheel to follow changes in the rotational speed of the main shaft, i.e. to run synchronously therewith. No energy exchange with the power supply network is required for this purpose. Because the flywheel masses are displaced in a controlled manner radially inwardly or outwardly in a special scheme or cycle, as required, they can reduce and increase, as appropriate, the rotational speed of the flywheel. The energy stored in the flywheel can be used to drive additional devices, thereby eliminating the need for energy from the power supply network. In addition, with Applicant's novel approach, energy for increasing the rotational speed of the flywheel can be withdrawn from the power supply network when the energy demand of the main drive is minimal. This avoids shortages in energy supply even when the shaft drive and the accessory devices are operated simultaneously.

The Sudau patent is directed to a motor vehicle torsional vibration damper. Only impermissible hindsight would have led to recourse to Sudau's teachings given that this patent is from the non-analogous field of motor

vehicles. The patent involves a torsional vibration damper for a motor vehicle drive train having two flywheels rotatable both jointly and relative to one another about a rotation axis. The two flywheels are coupled by a coupling mass for transmitting torsional force. The coupling mass includes rollers in guide tracks in both flywheels. Rotation of the flywheels relative to one another automatically causes a positive movement of the coupling mass in the guide tracks, and thus results in a force that counteracts the relative rotation of the flywheels due to the inertia effect. This is very different from the present invention in which the flywheel masses are not provided to couple one flywheel to another flywheel or to the main shaft, and to automatically respond to a relative rotation of the flywheels. The flywheel masses are solely within the flywheel and displaced in a controlled manner to change the moment of inertia for synchronizing the flywheel with the main shaft. Sudau teaches nothing like this for reasons that are readily understandable given what his damper was intended to achieve.

The DE '527 document merely discloses a press having a flywheel and a drive shaft. Flywheel masses for achieving synchronization of the flywheel and the drive shaft are not suggested at all. The Swenson, Sr. patent discloses a flywheel with compensation of unbalanced masses. It teaches nothing whatsoever about displacing flywheel masses in order to synchronize the rotational speed of the flywheel with a main shaft.

In summary, none of the cited prior art, including Narita and Sapolsky, provided for the integration of flywheel masses into the flywheel and control of the displacement of the flywheel masses for varying the moment of inertia to adjust its rotational speed according to changes of the rotational speed of the main shaft. The flywheel and the main shaft can now be mutually synchronized without the power supply.

Accordingly, early and favorable action is earnestly solicited.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #080408.52436US).

Respectfully submitted,

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For James F. McKeown
Registration No. 25,406

VINCENT J. SUNDERDICK
Registration No. 29,004

CROWELL & MORING LLP
Intellectual Property Group
P.O. Box 14300
Washington, DC 20044-4300
Telephone No.: (202) 624-2500
Facsimile No.: (202) 628-8844
JFM:crf
#378765